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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	DEC 01	ChemPort single article sales feature unavailable
NEWS 3	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 4	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 5	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS 6	FEB 10	COMPENDEX reloaded and enhanced
NEWS 7	FEB 11	WTEXTILES reloaded and enhanced
NEWS 8	FEB 19	New patent-examiner citations in 300,000 CA/CAplus patent records provide insights into related prior art
NEWS 9	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS 10	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS 11	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS 12	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS 13	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS 14	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS 15	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats
NEWS 16	MAR 11	EPFULL backfile enhanced with additional full-text applications and grants
NEWS 17	MAR 11	ESBIOBASE reloaded and enhanced
NEWS 18	MAR 20	CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS 19	MAR 23	CA/CAplus enhanced with more than 250,000 patent equivalents from China
NEWS 20	MAR 30	IMSPATENTS reloaded and enhanced
NEWS 21	APR 03	CAS coverage of exemplified prophetic substances enhanced
NEWS 22	APR 07	STN is raising the limits on saved answers
NEWS 23	APR 24	CA/CAplus now has more comprehensive patent assignee information
NEWS 24	APR 26	USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 25	APR 28	CAS patent authority coverage expanded
NEWS 26	APR 28	ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 27	APR 28	Limits doubled for structure searching in CAS REGISTRY
NEWS 28	MAY 08	STN Express, Version 8.4, now available
NEWS 29	MAY 11	STN on the Web enhanced

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 NEWS 30  MAY 11  BEILSTEIN substance information now available on
                  STN Easy
 NEWS 31  MAY 14  DGENE, PCTGEN and USGENE enhanced with increased
                  limits for exact sequence match searches and
                  introduction of free HIT display format
 NEWS 32  MAY 15  INPADOCDB and INPAFAMDB enhanced with Chinese legal
                  status data

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 20:47:27 ON 15 MAY 2009

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.44       0.44

FILE 'REGISTRY' ENTERED AT 20:48:27 ON 15 MAY 2009
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STRUCTURE FILE UPDATES:   14 MAY 2009  HIGHEST RN 1146852-72-3
DICTIONARY FILE UPDATES:  14 MAY 2009  HIGHEST RN 1146852-72-3

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

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REGISTRY includes numerically searchable data for experimental and
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on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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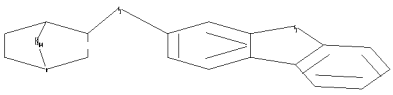

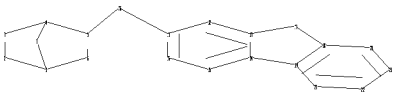

chain nodes :
26
ring nodes :
1 2 3 4 5 6 7 11 12 13 14 15 16 17 18 19 20 21 22 23
chain bonds :
5-26 11-26
ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 11-16 11-12 12-13 13-14 13-17 14-15
14-19 15-16 17-18 18-19 18-20 19-23 20-21 21-22 22-23
exact/norm bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 5-26 11-26 13-17 14-19 17-18
normalized bonds :
11-16 11-12 12-13 13-14 14-15 15-16 18-19 18-20 19-23 20-21 21-22 22-23
isolated ring systems :
containing 1 : 11 :

G1:C,O,S,N

G2:H,CH3,Et

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 11:Atom 12:Atom 13:Atom
14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 26:Atom

L1 STRUCTURE UPLOADED

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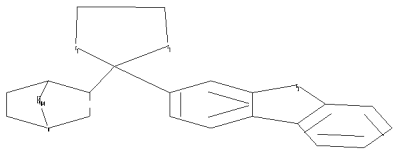

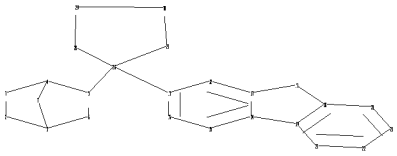

ring nodes :
1 2 3 4 5 6 7 11 12 13 14 15 16 17 18 19 20 21 22 23 26 27 28 29 30
chain bonds :
5-26 11-26
ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 11-16 11-12 12-13 13-14 13-17 14-15 14-19 15-16 17-18 18-19 18-20 19-23 20-21 21-22 22-23 26-27 26-28 27-30 28-29 29-30
exact/norm bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 5-26 11-26 13-17 14-19 17-18 26-27 26-28 27-30 28-29 29-30
normalized bonds :

```
11-16  11-12  12-13  13-14  14-15  15-16  18-19  18-20  19-23  20-21  21-22  22-23
isolated ring systems :
containing 1 : 11 : 26 :


G1:C,O,S,N

G2:H,CH3,Et

G3:O,S

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  11:Atom  12:Atom  13:Atom
14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom  20:Atom  21:Atom  22:Atom
23:Atom  26:Atom  27:Atom  28:Atom  29:Atom  30:Atom




L2      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.


=> d l2
L2 HAS NO ANSWERS
L2              STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.


=> s l1 full
FULL SEARCH INITIATED 20:50:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    51171 TO ITERATE

100.0% PROCESSED    51171 ITERATIONS                                36 ANSWERS
SEARCH TIME: 00.00.01

L3           36 SEA SSS FUL L1

=> s l2 full
FULL SEARCH INITIATED 20:50:15 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      199 TO ITERATE

100.0% PROCESSED      199 ITERATIONS                                 0 ANSWERS
SEARCH TIME: 00.00.01

L4            0 SEA SSS FUL L2

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   372.24     372.68

FILE 'CAPLUS' ENTERED AT 20:50:27 ON 15 MAY 2009
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FILE COVERS 1907 - 15 May 2009 VOL 150 ISS 21
FILE LAST UPDATED: 14 May 2009 (20090514/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

This file contains CAS Registry Numbers for easy and accurate

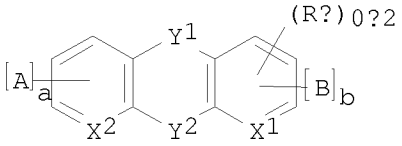
=> s l3 full
L5   2 L3

=> d ibib abs hitstr tot

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1132908 CAPLUS
DOCUMENT NUMBER: 143:405799
TITLE: Preparation of amino-substituted tricyclic derivatives as modulators of α7 nicotinic receptors and methods of use
INVENTOR(S): Schrimpf, Michael R.; Sippy, Kevin B.; Ji, Jianguo; Li, Tao; Frost, Jennifer M.; Briggs, Clark A.; Bunnelle, William H.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: U.S. Pat. Appl. Publ., 90 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050234031	A1	20051020	US 2005-51437	20050204
US 7365193	B2	20080429		
US 20080161281	A1	20080703	US 2008-46599	20080312

PRIORITY APPLN. INFO.: US 2004-541651P P 20040204
US 2005-51437 A1 20050204
OTHER SOURCE(S): CASREACT 143:405799; MARPAT 143:405799
GI



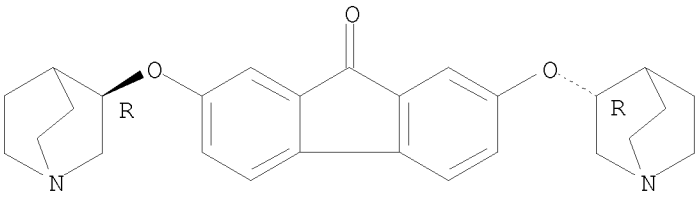
I

AB The title compds. I [A and B = H, halo, alkoxy, amino, etc.; X1, X2 = C, CH, N; provided that when one of X1 and X2 = N, the other + C or CH; Y1 = C(O), CH2, CH(OH), C(S), etc.; Y2 is a bond or Y2 = O, S, and N(R12); R12 = H, alkyl; Rx = H, halo, alkoxy, amino, alkylamino, dialkylamino, acylamino, dialkylaminoalkyl, and cyano; a = 0-1; b = 0-1; provided that when one of a and b = 0, the other = 1] and compns. containing I are contemplated as well as methods for treating conditions or disorders prevented by or ameliorated by α7 nAChR ligands that encompass compds. I and other tricyclic derivs. Compds. I had Ki values of from .apprx.1 nM to .apprx.10 μM when tested by the [3H]-methyllycaconitine binding assay, many having a Ki of <1 μM. (3H)-Cytisine binding values of I ranged from .apprx.50 nM to at least 100 μM. Preferred compds. typically exhibited greater potency at α7 receptors compared to α4β2 receptors. Although the methods of preparation are not claimed, 67 example prepns. are included. For example, 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one di-p-toluenesulfonate was prepared in 4 steps (54, 89, 26 and 74 % yields) starting from 2,7-dihydroxyfluoren-9-one, (2R)-(+)-1-Boc-2-pyrrolidinemethanol and involving intermediates 2,7-bis[((2R)-1-Boc-pyrrolidin-2-yl)methoxy]fluoren-9-one, 2,7-bis[((2R)-pyrrolidin-2-yl)methoxy]fluoren-9-one, and 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one.
IT 861118-22-1P, 2,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-25-4P,

2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one
861118-26-5P, 2,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-29-8P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one
861118-53-8P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)

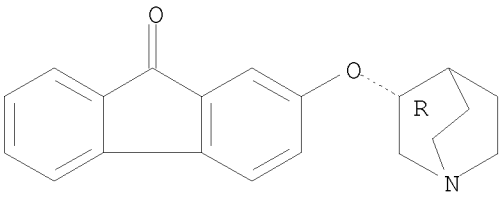
RN 861118-22-1 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



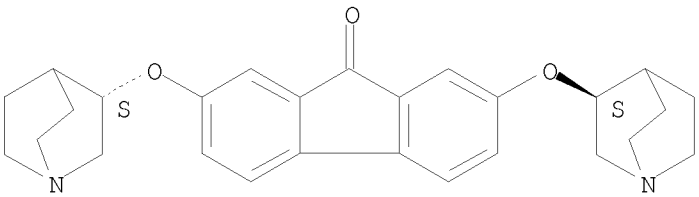
RN 861118-25-4 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



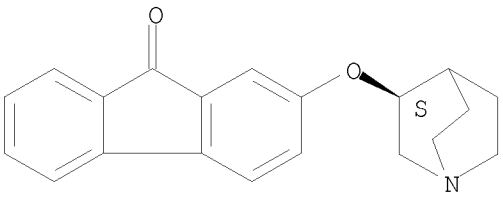
RN 861118-26-5 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



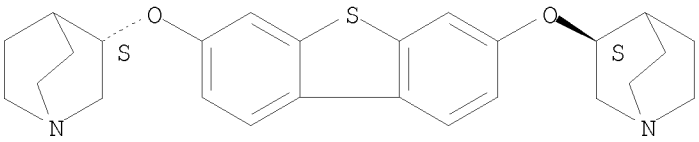
RN 861118-29-8 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



RN 861118-53-8 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



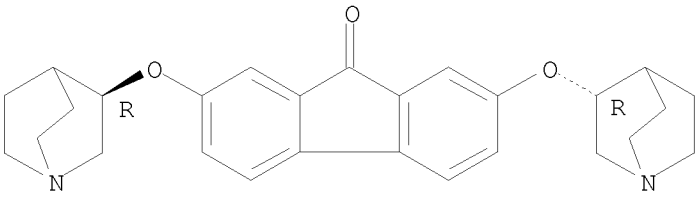
IT 861118-23-2P, 2,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one di-p-toluenesulfonate 861118-27-6P, 2,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate 861118-28-7P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one p-toluenesulfonate 861118-30-1P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate 861118-54-9P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene di-p-toluenesulfonate 861118-93-6P, 2-[(1-Azabicyclo[2.2.2]octan-3-yl)oxy]-9H-carbazole 861119-28-0P , 2-Amino-7-[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861119-31-5P, 2-Amino-7-[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861119-34-8P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-methylaminofluoren-9-one 861119-37-1P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-methylaminofluoren-9-one 861119-40-6P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-dimethylaminofluoren-9-one 861119-43-9P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-dimethylaminofluoren-9-one 861119-45-1P, 3,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene 861119-48-4P, 3,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene-5,5-dioxide 861132-04-9P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene-5,5-dioxide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)

RN 861118-23-2 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-, 4-methylbenzenesulfonate (1:2) (CA INDEX NAME)

CM 1

CRN 861118-22-1
CMF C27 H30 N2 O3

Absolute stereochemistry.



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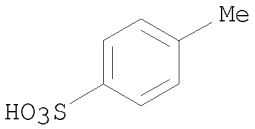
CRN 104-15-4
CMF C7 H8 O3 S

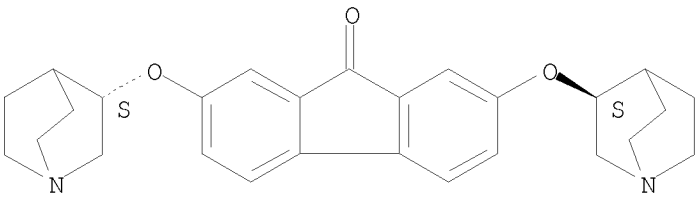


RN 861118-27-6 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-26-5
CMF C27 H30 N2 O3

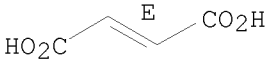
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

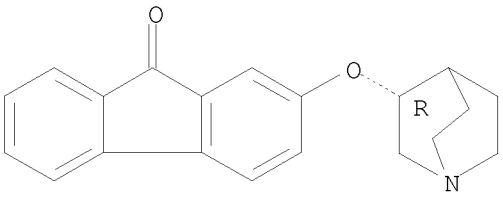


RN 861118-28-7 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

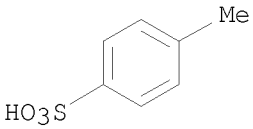
CRN 861118-25-4
CMF C20 H19 N O2

Absolute stereochemistry.



CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 861118-30-1 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

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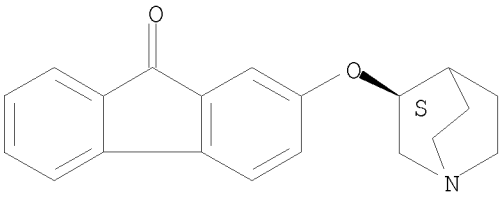
CRN 861118-29-8
CMF C20 H19 N O2

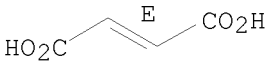
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



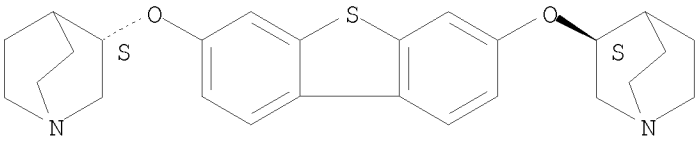
RN 861118-54-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-,

(3S,3'S)-, bis(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

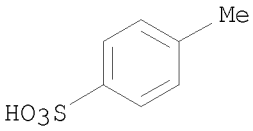
CRN 861118-53-8
CMF C26 H30 N2 O2 S

Absolute stereochemistry.

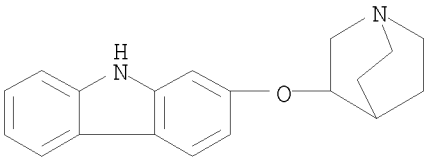


CM 2

CRN 104-15-4
CMF C7 H8 O3 S

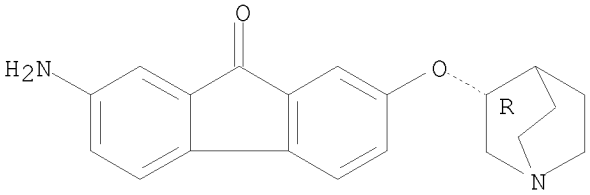


RN 861118-93-6 CAPLUS
CN 9H-Carbazole, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)- (CA INDEX NAME)



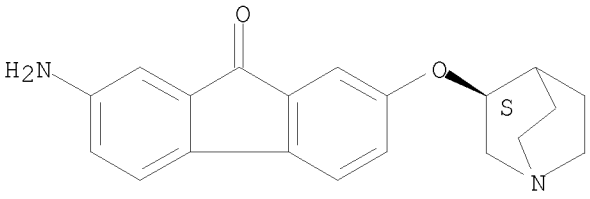
RN 861119-28-0 CAPLUS
CN 9H-Fluoren-9-one, 2-amino-7-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



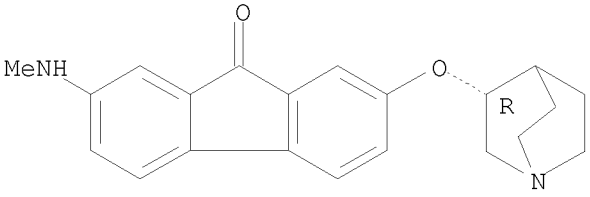
RN 861119-31-5 CAPLUS
CN 9H-Fluoren-9-one, 2-amino-7-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



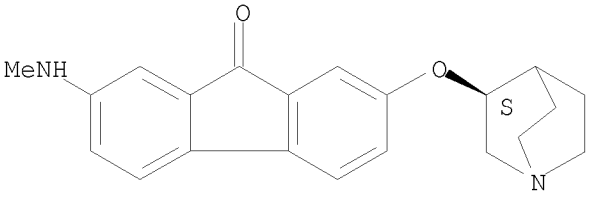
RN 861119-34-8 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(methylamino)-
(CA INDEX NAME)

Absolute stereochemistry.



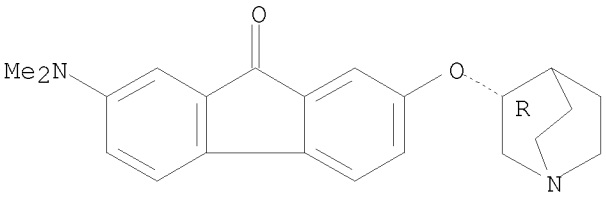
RN 861119-37-1 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(methylamino)-
(CA INDEX NAME)

Absolute stereochemistry.



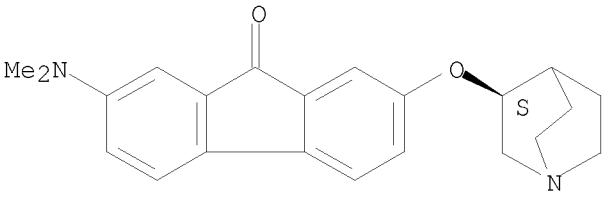
RN 861119-40-6 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-
(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.



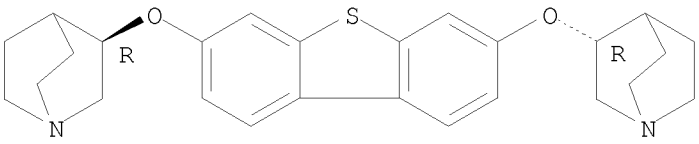
RN 861119-43-9 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-
(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.



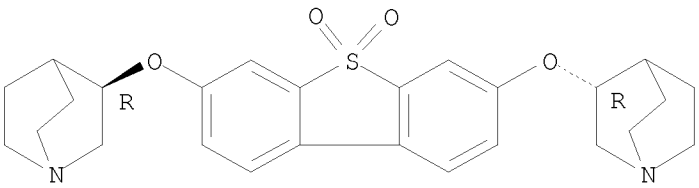
RN 861119-45-1 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-, (3R,3'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



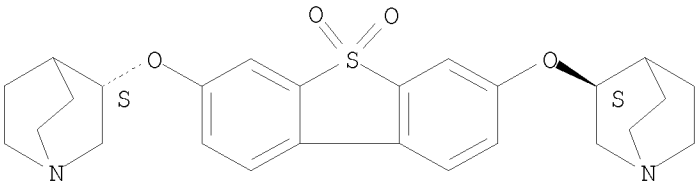
RN 861119-48-4 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[(5,5-dioxido-3,7-dibenzothiophenediyl)bis(oxy)]bis-, (3R,3'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 861132-04-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[(5,5-dioxido-3,7-dibenzothiophenediyl)bis(oxy)]bis-, (3S,3'S)- (9CI) (CA INDEX NAME)

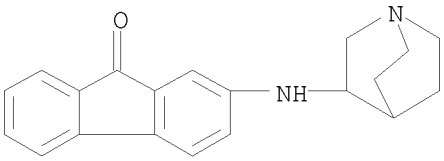
Absolute stereochemistry.



IT 867373-89-5P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)
RN 867373-89-5 CAPLUS
CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-ylamino)-, 4-methylbenzenesulfonate (1:2) (CA INDEX NAME)

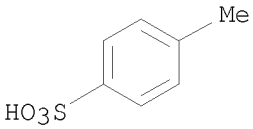
CM 1

CRN 867373-88-4
CMF C20 H20 N2 O



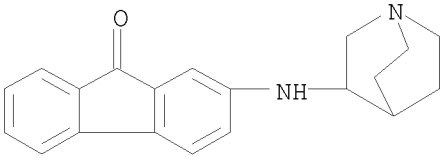
CM 2

CRN 104-15-4
CMF C7 H8 O3 S

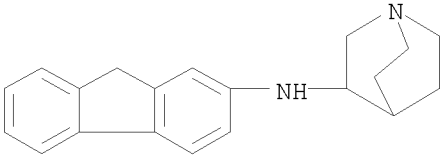


IT 867373-88-4P 867373-99-7P 867374-00-3P
867374-01-4P 867374-02-5P 867374-03-6P
867374-04-7P 867374-05-8P 867374-06-9P
867374-07-0P 867374-22-9P 867374-23-0P
867374-65-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)

RN 867373-88-4 CAPLUS
CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-ylamino)- (CA INDEX NAME)



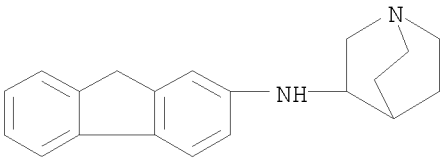
RN 867373-99-7 CAPLUS
CN 1-Azabicyclo[2.2.2]octan-3-amine, N-9H-fluoren-2-yl- (CA INDEX NAME)



RN 867374-00-3 CAPLUS
CN 1-Azabicyclo[2.2.2]octan-3-amine, N-9H-fluoren-2-yl-,
4-methylbenzenesulfonate (1:2) (CA INDEX NAME)

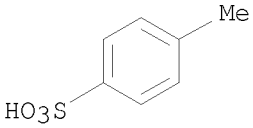
CM 1

CRN 867373-99-7
CMF C20 H22 N2



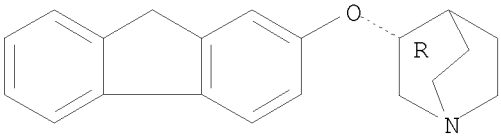
CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 867374-01-4 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, hydrochloride (1:1),
(3R)- (CA INDEX NAME)

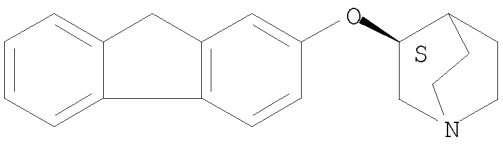
Absolute stereochemistry.



● HCl

RN 867374-02-5 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, hydrochloride (1:1),
(3S)- (CA INDEX NAME)

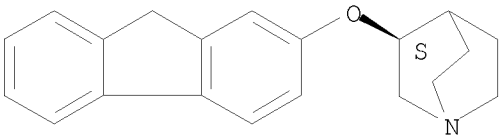
Absolute stereochemistry.



● HCl

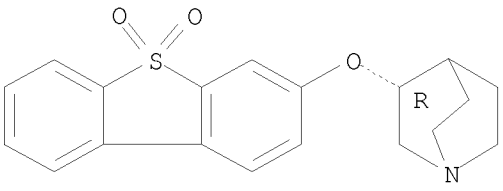
RN 867374-03-6 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 867374-04-7 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothienyl)oxy]-, (3R)-
(CA INDEX NAME)

Absolute stereochemistry.

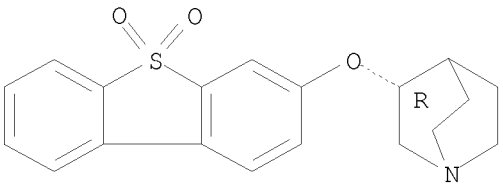


RN 867374-05-8 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothienyl)oxy]-, (3R)-,
4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

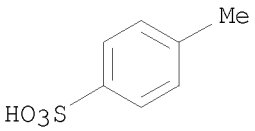
CRN 867374-04-7
CMF C19 H19 N O3 S

Absolute stereochemistry.



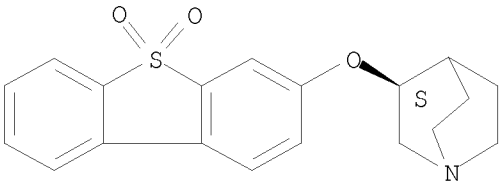
CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 867374-06-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothienyl)oxy]-, (3S)-
(CA INDEX NAME)

Absolute stereochemistry.

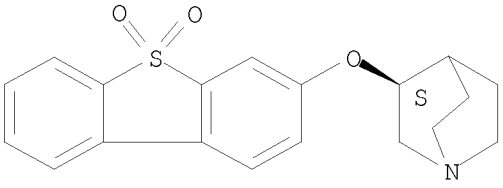


RN 867374-07-0 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-[(5,5-dioxido-3-dibenzothienyl)oxy]-, (3S)-,
4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

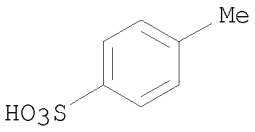
CRN 867374-06-9
CMF C19 H19 N O3 S

Absolute stereochemistry.



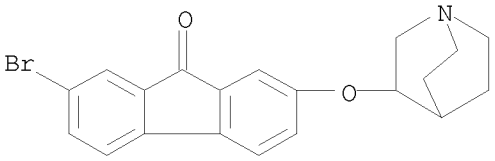
CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 867374-22-9 CAPLUS
CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)-7-bromo- (CA INDEX

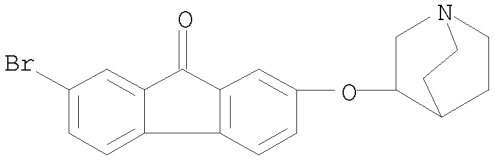
NAME)



RN 867374-23-0 CAPLUS
CN 9H-Fluoren-9-one, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)-7-bromo-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

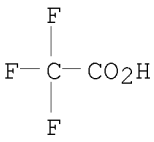
CM 1

CRN 867374-22-9
CMF C20 H18 Br N O2



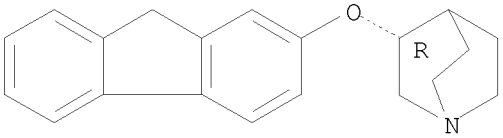
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 867374-65-0 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3-(9H-fluoren-2-yloxy)-, (3R)- (CA INDEX NAME)

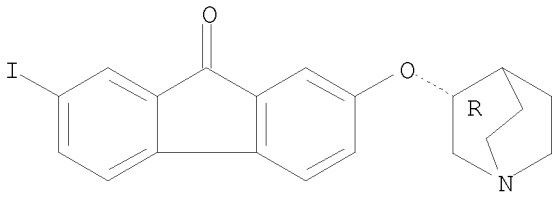
Absolute stereochemistry.



IT 861118-24-3P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-iodofluoren-9-one 867374-48-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)
RN 861118-24-3 CAPLUS

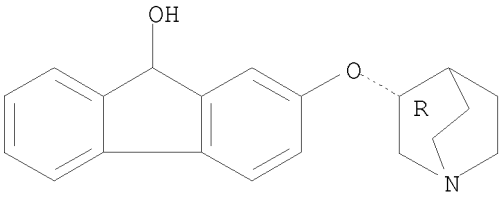
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-iodo- (CA INDEX NAME)

Absolute stereochemistry.



RN 867374-48-9 CAPLUS
CN 9H-Fluoren-9-ol, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 111 THERE ARE 111 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:698355 CAPLUS
DOCUMENT NUMBER: 143:172757
TITLE: Preparation of amino-substituted tricyclic derivatives as modulators of α7 nicotinic receptors and methods of use
INVENTOR(S): Schrimpf, Michael R.; Sippy, Kevin B.; Ji, Jianguo; Li, Tao; Pace, Jennifer M.; Briggs, Clark A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 67 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050171079	A1	20050804	US 2004-772192	20040204
CA 2555884	A1	20050825	CA 2005-2555884	20050204
WO 2005077899	A2	20050825	WO 2005-US3578	20050204
WO 2005077899	A3	20051201		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1711463	A2	20061018	EP 2005-712865	20050204
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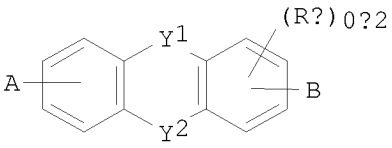
JP 2007523899	T	20070823	JP 2006-552264	20050204
MX 2006008817	A	20061106	MX 2006-8817	20060803

PRIORITY APPLN. INFO.: US 2004-772192 A 20040204
WO 2005-US3578 W 20050204
OTHER SOURCE(S): CASREACT 143:172757; MARPAT 143:172757
GI



I

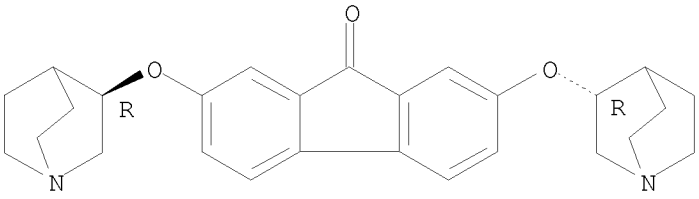
AB Amino-substituted tricyclic derivs. (shown as I; variables defined below; e.g. 2,7-Bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one di-p-toluenesulfonate (II)) and compns. containing I are contemplated as well as methods for treating conditions or disorders prevented by or ameliorated by α7 nAChR ligands that encompass compds. I and other tricyclic derivs. Compds. I had Ki values of from .apprx.1 nM to .apprx.10 μM when tested by the [3H]-methyllycaconitine binding assay, many having a Ki of <1 μM. (3H)-Cytisine binding values of I ranged

from .apprx.50 nM to at least 100 μM. Preferred compds. typically exhibited greater potency at α7 receptors compared to α4β2 receptors. For I: A and B = H, halogen, alkoxy, amino, alkylamino, acylamino, dialkylamino, cyano, nitro, and -SO3H, -C.tplbond.CCH2NR7R8 and -O-[C(R20)2-3N(R21)(R22)], et al.; Y1 = -C(O)-, -CH2-, -CH(OH)-, -C(S)-, -N(R11)-, -O-, -S-, -S(O)-, -S(O)2-, -C(O)NH-, and -S(O)2NH-; Y2 is a bond or Y2 = -O-, -S-, and -N(R12)-; Rx = H, halogen, alkoxy, amino, alkylamino, dialkylamino, acylamino, dialkylaminoalkyl, and cyano; addnl. details including provisos are given in the claims. Although the methods of preparation are not claimed, 22 example prepns. are included. For example, II was prepared in 4 steps (54, 89, 26 and 74 % yields) starting from 2,7-dihydroxyfluoren-9-one, (2R)-(+)-1-Boc-2-pyrrolidinemethanol and involving intermediates 2,7-bis[((2R)-1-Boc-pyrrolidin-2-yl)methoxy]fluoren-9-one, 2,7-bis[((2R)-pyrrolidin-2-yl)methoxy]fluoren-9-one, and 2,7-bis[((2R)-1-methylpyrrolidin-2-yl)methoxy]fluoren-9-one.

IT 861118-22-1P, 2,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-25-4P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-26-5P, 2,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-29-8P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861118-53-8P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)

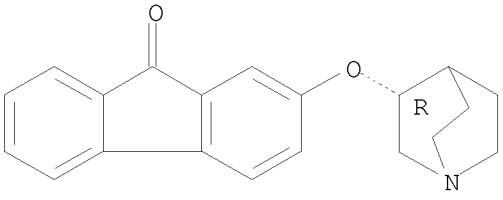
RN 861118-22-1 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



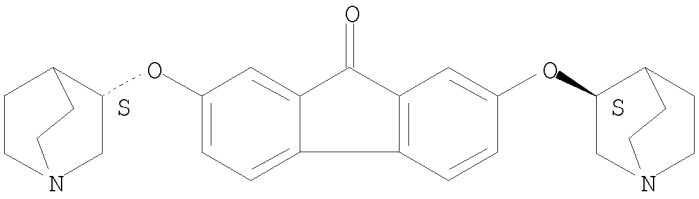
RN 861118-25-4 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



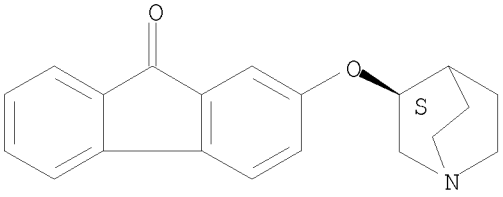
RN 861118-26-5 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



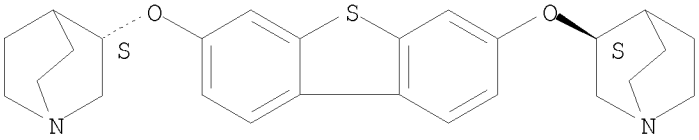
RN 861118-29-8 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



RN 861118-53-8 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 861118-23-2P, 2,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one di-p-toluenesulfonate 861118-27-6P, 2,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate 861118-28-7P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one p-toluenesulfonate 861118-30-1P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one fumarate 861118-54-9P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene di-p-toluenesulfonate 861118-93-6P, 2-[(1-Azabicyclo[2.2.2]octan-3-yl)oxy]-9H-carbazole 861119-28-0P , 2-Amino-7-[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861119-31-5P, 2-Amino-7-[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]fluoren-9-one 861119-34-8P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-methylaminofluoren-9-one 861119-37-1P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-methylaminofluoren-9-one 861119-40-6P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-dimethylaminofluoren-9-one 861119-43-9P, 2-[[(3S)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-dimethylaminofluoren-9-one 861119-45-1P, 3,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene 861119-48-4P, 3,7-Bis[[(3R)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene-5,5-dioxide 861132-04-9P, 3,7-Bis[[(3S)-1-azabicyclo[2.2.2]octan-3-yl]oxy]dibenzothiophene-5,5-

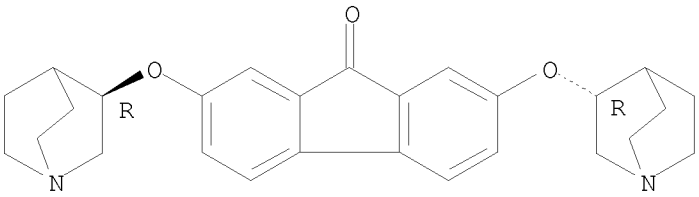
dioxide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)

RN 861118-23-2 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-, 4-methylbenzenesulfonate (1:2) (CA INDEX NAME)

CM 1

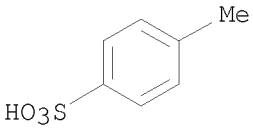
CRN 861118-22-1
CMF C27 H30 N2 O3

Absolute stereochemistry.



CM 2

CRN 104-15-4
CMF C7 H8 O3 S

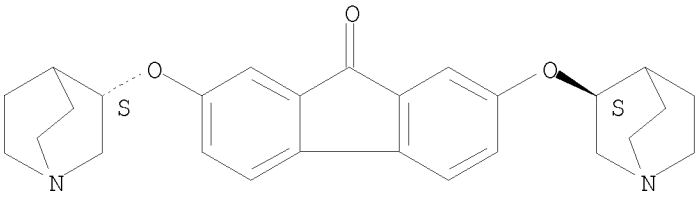


RN 861118-27-6 CAPLUS
CN 9H-Fluoren-9-one, 2,7-bis[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-26-5
CMF C27 H30 N2 O3

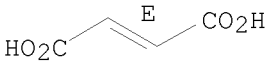
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

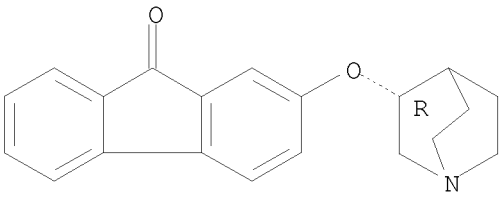


RN 861118-28-7 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

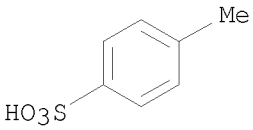
CRN 861118-25-4
CMF C20 H19 N O2

Absolute stereochemistry.



CM 2

CRN 104-15-4
CMF C7 H8 O3 S

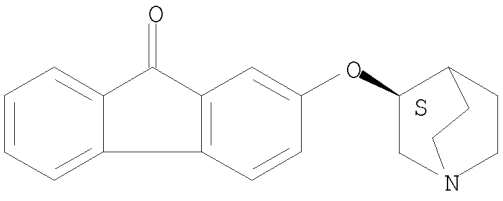


RN 861118-30-1 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 861118-29-8
CMF C20 H19 N O2

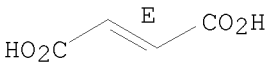
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

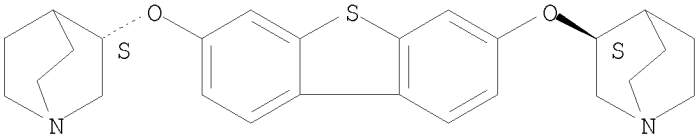


RN 861118-54-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-, (3S,3'S)-, bis(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

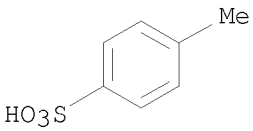
CRN 861118-53-8
CMF C26 H30 N2 O2 S

Absolute stereochemistry.

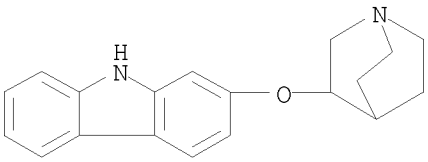


CM 2

CRN 104-15-4
CMF C7 H8 O3 S

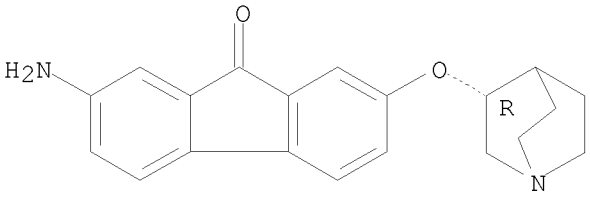


RN 861118-93-6 CAPLUS
CN 9H-Carbazole, 2-(1-azabicyclo[2.2.2]oct-3-yloxy)- (CA INDEX NAME)



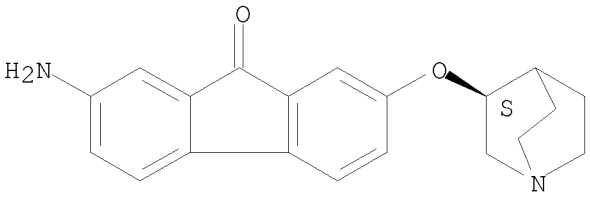
RN 861119-28-0 CAPLUS
CN 9H-Fluoren-9-one, 2-amino-7-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



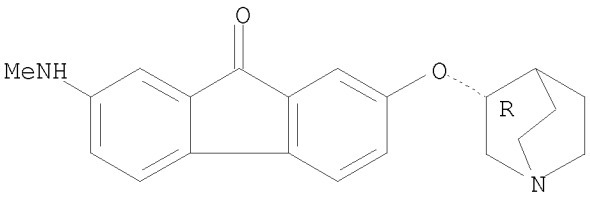
RN 861119-31-5 CAPLUS
CN 9H-Fluoren-9-one, 2-amino-7-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]- (CA INDEX NAME)

Absolute stereochemistry.



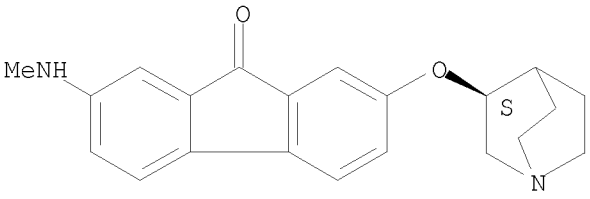
RN 861119-34-8 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(methylamino)- (CA INDEX NAME)

Absolute stereochemistry.



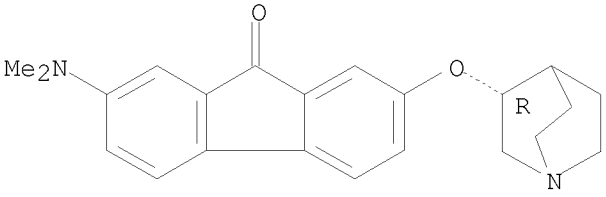
RN 861119-37-1 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(methylamino)- (CA INDEX NAME)

Absolute stereochemistry.



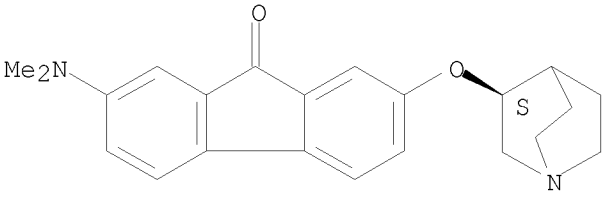
RN 861119-40-6 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.



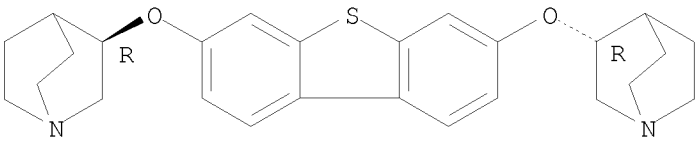
RN 861119-43-9 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.



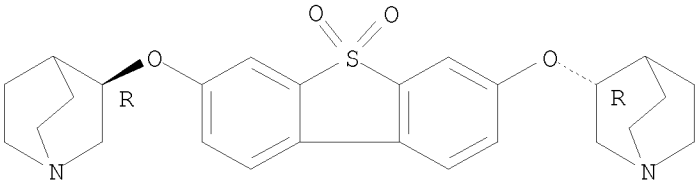
RN 861119-45-1 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[3,7-dibenzothiophenediylbis(oxy)]bis-, (3R,3'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



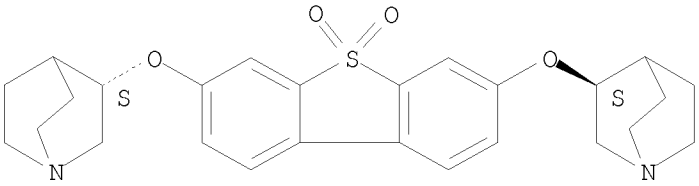
RN 861119-48-4 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[(5,5-dioxido-3,7-dibenzothiophenediyl)bis(oxy)]bis-, (3R,3'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



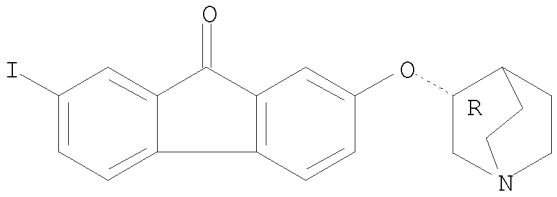
RN 861132-04-9 CAPLUS
CN 1-Azabicyclo[2.2.2]octane, 3,3'-[(5,5-dioxido-3,7-dibenzothiophenediyl)bis(oxy)]bis-, (3S,3'S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 861118-24-3P, 2-[[(3R)-1-Azabicyclo[2.2.2]octan-3-yl]oxy]-7-iodofluoren-9-one
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino-substituted tricyclic derivs. as modulators of α7 nicotinic receptors and methods of use)
RN 861118-24-3 CAPLUS
CN 9H-Fluoren-9-one, 2-[(3R)-1-azabicyclo[2.2.2]oct-3-yloxy]-7-iodo- (CA INDEX NAME)

Absolute stereochemistry.



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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      12.28     384.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                      -1.64      -1.64

STN INTERNATIONAL LOGOFF AT 20:51:42 ON 15 MAY 2009
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